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Poster

Evolution of the Away-side Jet Shape and Yield From π^0-h$^\pm$ Correlations in $\sqrt{s_{NN}}$= 200 GeV Au+Au collisions

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The shape and yield of the away-side ($\Delta\phi \sim \pi$) correlations were shown to vary dramatically with the trigger and associated particle p_T and with collisions centrality. At the lowest trigger p_T ($\sim$ 2 GeV/c) the away-side shape is dramatically broadened and a peak develops away from $\Delta\phi = \pi$. At higher trigger p_T ($\sim$ 5 GeV/c) the away-side jet yield appear to be suppressed but the jet shape is not broadened. The evolution of the jet shape and yield with trigger and associated particle p_T is important in order to gain access into understanding parton energy loss and other novel mechanisms such as mach cones or cerenkov radiation within the medium. In this poster we present π^0-h$^\pm$ azimuthal correlations from the PHENIX experiment for a wide range of trigger and associated p_T ranges and study the away-side shape and yield as a function of these.